

What is claimed is:

- [c1] 1. A method of recognizing speech in systems that accept speech input, comprising:
- (a) receiving at least a current subgroup of speech units that form part of a complete speech sequence that is to be input from a user;
  - (b) detecting a natural pause between input subgroups;
  - (c) recognizing the speech units of the subgroup to provide a recognition result; and
  - (d) immediately feeding back the recognition result for verification by the user,
- [c2] 2. The method of claim 1, wherein said user is only prompted to repeat said subgroup for re-recognition and re-verification if a rejection criteria is met.
- [c3] 3. The method of claim 1, further comprising:
- (e) repeating steps (a) to (d) for remaining input subgroups until it is determined that the complete speech sequence has been recognized.
- [c4] 4. The method of claim 1, wherein step (d) is effected using pre-recorded prompts or via text-to-speech synthesis, (TTS) to feedback the recognition result.
- [c5] 5. The method of claim 2, wherein said rejection criteria is embodied as a negative utterance spoken by the user after receiving the fed back recognition result.
- [c6] 6. The method of claim 2, wherein said rejection criteria is embodied as a negative utterance spoken by the user concurrent with inputting the subgroup that is recognized in step (c).

[c7] 7. The method of claim 2, wherein if said rejection criteria are met repeatedly, the user is prompted to speak the subgroups in smaller groups of speech units.

[c8] 8. The method of claim 7, wherein said prompt to speak subgroups in smaller groups of speech units provides a built in training mechanism for the user.

[c9] 9. The method of claim 2, wherein if said rejection criteria are met repeatedly, the user is prompted to use a dial pad to enter the speech units.

[c10] 10. The method of claim 1, wherein said speech units are selected from any of spoken digits, spoken letters and spoken words.

[c11] 11. The method of claim 1, wherein input of a next subgroup after receiving the fed back recognition result indicates a correct recognition of the currently input subgroup.

[c12] 12. The method of claim 2, wherein said rejection criteria requires determining a level of confidence in said recognition result.

[c13] 13. An automatic speech recognition system, comprising:  
a receiver for receiving at least a current subgroup of speech units that form part of a complete speech sequence that is to be input by a user;  
a detector for detecting a natural pause after receiving the subgroup;  
a decoder for detecting a natural pause between input subgroups to output a recognition result representative of the current subgroup; and  
a controller for evaluating the output recognition result and feeding back the recognition result to the user.

[c14] 14. The system of claim 13, wherein said user is only prompted to repeat said subgroup for re-recognition and re-verification if a rejection criteria is met.

PCT/US2008/026250

- [c15] 15. The system of claim 13, wherein the decoder compares the input subgroup with stored recognition grammar in order to determine the recognition result.
- [c16] 16. The system of claim 18, wherein the recognition grammar is stored in a remote memory accessible by the decoder.
- [c17] 17. The system of claim 14,  
wherein the recognition result includes at least one of a subgroup of speech units and a negative utterance representation that is included in the recognition result, and  
wherein the rejection criteria is met if the negative utterance is included therein.
- [c18] 18. The system of claim 14, wherein said rejection criteria is met if the user speaks a negative utterance after receiving the fed back recognition result.
- [c19] 19. The system of claim 14, wherein said rejection criteria is met if the user speaks a negative utterance while inputting the current subgroup, so that said recognition result includes the negative utterance.
- [c20] 20. The system of claim 14, wherein the system remains active to process subsequent subgroups until it is determined that the complete speech sequence has been recognized.
- [c21] 21. The system of claim 13, wherein said controller accesses pre-recorded prompts or a text-to-speech synthesis processor in order to effect feedback of the recognition result to the user.

- [c22] 22. The system of claim 14, wherein if said rejection criteria is met repeatedly, said controller prompts the user to speak the subgroups in smaller groups of speech units.
- [c23] 23. The system of claim 22, wherein said prompt to speak subgroups in smaller groups of speech units provides a built in training mechanism for the user.
- [c24] 24. The system of claim 14, wherein if said rejection criteria is met repeatedly, said prompt generator prompts the user to use a dial pad to enter digits corresponding to the speech units.
- [c25] 25. The system of claim 13, wherein said speech units are selected from any of spoken digits, spoken letter and spoken words.
- [c26] 26. The system of claim 13, wherein input of a next subgroup after receiving the fed back recognition result indicates a correct recognition of the currently input subgroup.
- [c27] 27. The system of claim 13, wherein said decoder determines a confidence level for said recognition result.

0933462000-0933462004